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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,605	12/15/2003	Robert Richardson	41557-199416 RK	1489
26694	7590	01/21/2005	EXAMINER	
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			NGUYEN, MATTHEW VAN	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/734,605

Applicant(s)

RICHARDSON ET AL.

Examiner

MATTHEW V NGUYEN

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. The disclosure should be carefully reviewed and ensure that any and all grammatical, idiomatic, and spelling or other minor errors are corrected.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kino et al. (U.S. Pat. No. 4,525,774).

With regard to claims 1, 3, 5 and 8-10, Kino et al. (i.e., Fig. 3) shows a transformer being operable at high voltage with an ac voltage source (12), comprising a primary winding (50a), a rectifier arrangement (8, 10) for rectifying voltage induced in a secondary winding that includes two coils (50c, 50d), each coil having a rectifier diode (8) as an integrated part of the coil, which comprises a plurality of diodes arranged in parallel to one another.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kino et al. in view of Hiltunen et al. (U.S. pat. No. 6,490,180).

With regard to claims 2 and 4, Kino et al. shows a transformer arrangement comprising all the claimed subject matter as discussed above, except for each of the coils of the secondary being a single turn winding and connected to a printed circuit board.

Hiltunen et al. discloses a transformer arrangement (i.e., Figs. 2a, 4, 5) in which each of the secondary windings (cw2a, cw2b) is a single turn and comprises conductive strips connected to a printed circuit board (90) (col. 4, lines 13-24).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the secondary winding being a single turn connected to the printed circuit board as shown in Hiltunen et al. into the transformer arrangement of Kino et al. for the purpose of having "a relatively low production costs" via "a small number of turns can be arranged ... in the production process" (col. 2, lines 14-18).

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kino et al. in view of Teich et al. (U.S. Pat. No. 4,507,531).

With regard to claims 6 and 7, Kino et al. shows a transformer arrangement comprising all the claimed subject matter as discussed above, except for the transformer arrangement being used in supplying power to a pulsed magnetron heater.

Teich et al. discloses a power supply system (i.e., Fig. 2) in which a pulsed magnetron heater (12) (col. 9, line 42) being supplied power through a high voltage transformer (46).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the power supply system with the pulse magnetron heater at the load as shown in Teich et al. and the transformer arrangement of Kino et al. for the purpose of giving the apparatus of Kino et al. an ability to supply power for the magnetron heater.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kino et al. in view of Koroncai et al. (U.S. Pat. No. 4,506,320).

With regard to claim 11, Kino et al. shows a transformer arrangement comprising all the claimed subject matter as discussed above, except for the rectifier diode arrangement being arranged to cool the diodes.

Koroncai et al. discloses a power rectifier arrangement (i.e., Figs. 1-3) in which 4 diodes (1-4) are screwed into two heat sinks 11 (also col. 2, lines 45-56).

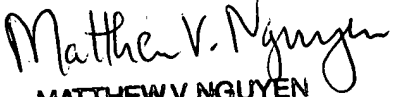
It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the arrangement of the rectifier diodes connected to the heat sinks as shown in Koroncai et al. into the transformer arrangement of Kino et al. for the purpose of preventing overheating of the power rectifiers (col. 1, lines 35-37).

6.. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Balakrishman (U.S. Pat. No. 5,285,369), Schlecht (U.S. Pat. No. 6,222,742) and Ikeda et al. (U.S. Pat. No. 6,181,576) also disclose power supply circuits each of which comprises a transformer including secondary windings each connected to a diode arrangement.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew V. Nguyen whose telephone number is (571) 272-2081.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2800.

  
MATTHEW V. NGUYEN  
PRIMARY EXAMINER